

REMARKS

Initially, Applicants express appreciation to the Examiner for the detailed Official Action provided. Furthermore, Applicants express appreciation to the Examiner for the acknowledgment of Applicants' Claim for Priority and Receipt of the certified copies of the priority documents in the Official Action and for the acknowledgment of Applicants' Information Disclosure Statement (IDS) filed on September 2, 2008 by return of the Form PTO-1449.

Upon entry of the present paper, claims 1, 4-5, and 7 will have been amended and claims 2-3 will have been cancelled. The herein-contained amendments should not be considered an indication of Applicants' acquiescence as to the propriety of the outstanding rejection. Rather, Applicants have amended claim 1, 4-5, and 7 and cancelled claims 2-3 in order to advance prosecution and obtain early allowance of the claims in the present application. Furthermore, no prohibited new matter has been introduced by the abovementioned amendments. In this regard, support for the present amendments can be found at least on page 13, line 22 to page 14, line 4; page 3, lines 20-23; page 15, lines 6-16; and Figure 8 of the present application as filed on April 6, 2005. Thus, claims 1 and 4-7 are pending in the present application and are submitted for reconsideration by the Examiner.

Applicants address the objection and rejection provided within the Official Action below and respectfully request reconsideration and withdrawal of the outstanding objection and rejection pending in the present application together with an indication of the allowability of claims 1 and 4-7 (i.e., all pending claims) in the next Official

communication. Such action is respectfully requested and is now believed to be appropriate for at least the reasons provided below.

Objections to the Claims

In the outstanding Official Action, the Examiner objected to claim 1 because of an informality. By the present paper, Applicants have amended claim 1 in accordance with the Examiner's suggestion. Thus, Applicants submit that the grounds for the objection to claim 1 no longer exist and respectfully request withdrawal of the claim rejection.

35 U.S.C. § 103 Claim Rejections

In the outstanding Official Action, claims 1-7 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,537,635 to Douglas (hereinafter "DOUGLAS") in view of European Patent Application No. 1050887 to Hirota et al. (hereinafter "HIROTA").

Initially, Applicants again note that, without agreeing to the propriety of the Examiner's rejection and solely to expedite the patent application process, Applicants have amended independent claim 1 and dependent claims 4, 5 and 7. In this regard, Applicants respectfully traverse the Examiner's rejection. Specifically, Applicants submit that DOUGLAS and HIROTA, whether considered alone or together in any proper combination thereof, fail to disclose or render obvious an information storage apparatus, as recited by independent claim 1, including an area updater that updates, when a partition request satisfies update conditions, the number and sizes of a plurality of partitioned areas (each being one of a non-authenticated area, an authenticated area, and a secure area) in a memory area according to the partition request.

To the contrary, HIROTA discloses a semiconductor memory card including a control IC 302 and a flash memory 303 (*see* HIROTA, Abstract). The flash memory includes an authenticated partition 332 and a non-authenticated partition 331 (*see* HIROTA, Abstract). In this regard, according to HIROTA, the semiconductor memory card is able to store digital data, such as copyright-protected data, in the authenticated partition 332 and general-purpose data in the non-authenticated partition 331 (*see* HIROTA, col. 2, lines 14-53). Moreover, HIROTA discloses that the size of the authenticated partition 332 and the non-authenticated partition 331 can be changed (*see* HIROTA, col. 26, lines 31-39). However, as shown in Figure 5 of HIROTA, the semiconductor memory card as disclosed by HIROTA includes a fixed number of partitions, i.e. two, the single authenticated partition 332 and the single non-authenticated partition 331. In fact, European Patent No. 1050887 to Hirota, the patent which issued from HIROTA, explicitly recites that it is an object of HIROTA to provide a semiconductor memory card simplifying a partitioning of a memory area 303 into an authenticated partition 332 and a non-authenticated partition 331 (*see* EP 1050887, col. 2, lines 27-31). Thus, Applicants submit that HIROTA does not disclose updating the number of the authenticated partition 332 and the non-authenticated partition 331 in addition to updating the size of the authenticated partition 332 and the non-authenticated partition 331, as recited by amended independent claim 1.

With respect to DOUGLAS, as previously submitted, DOUGLAS discloses a method and system for avoiding a cache-full condition in a least recently used (LRU) cache 20 to increase the hit rate in the cache memory (*see* DOUGLAS, Abstract). DOUGLAS further discloses the LRU cache 20 as having a plurality of cache partitions

and being intercoupled with a processor (CPU) 10 (*see* DOUGLAS, Col. 3, lines 61-67). The CPU 10 periodically determines what the optimum size of each cache partition of the LRU cache 20 should be to best carry out the caching policy (*see* DOUGLAS, Col. 3, line 65 to col. 4, line 4). Then, based upon the optimum size, the CPU 10 assigns reclaim vectors to each cache partition to specify how many frames should be stolen from a corresponding partition (*see* DOUGLAS, Col. 4, lines 16-22). The total number of frames specified by the reclaim vector is the amount of frames necessary to achieve that partition's optimum size. Accordingly, DOUGLAS, discloses a system and method which periodically determines an optimum size for a plurality of cache partitions and which periodically configures the size of each cache partition in accordance with the determined optimum size in order to improve the cache memory hit ratio (*see* DOUGLAS, Abstract). Applicants submit that DOUGLAS does not disclose updating the number of cache partitions in addition to updating the size of the cache partitions, as recited by amended independent claim 1.

Applicants note that, in the outstanding Official Action, the Examiner asserts that DOUGLAS discloses updating the number or sizes of the partitioned areas at column 6, lines 10-26 of DOUGLAS. In this regard, Applicants submit that the above-noted disclosure of DOUGLAS relied upon by the Examiner merely discloses updating the size of the cache partitions as set forth above. Applicants further submit that the above-noted disclosure of DOUGLAS does not disclose updating the number of cache partitions.

On the other hand, the present application is related to an information storage apparatus that includes a plurality of partitioned areas, each configured to have different security levels, and, in contradistinction to HIROTA and DOUGLAS, the number and

sizes of the plurality of partitioned areas have different security levels that can be updated in accordance with a partition request. Conventionally, with respect to information storage apparatuses, the number and sizes of partitioned areas having different security levels must be configured by the issuer or manufacturer. However, the above-noted feature of the present application provides the non-limiting and advantageous effect of eliminating the need for the issuer or manufacturer of the information storage apparatus, as recited by independent claim 1, to prepare a variety of information storage apparatuses wherein each includes various numbers of partitions of different security levels (*see* page 15, lines 17 to 25 of the present application as filed on April 6, 2005). In other words, a user of the information storage apparatus is able to determine the number and sizes of the partitioned areas based on the user's intent.

In addition to, and independently of, the above, Applicants note that independent claim 1 has been amended to generally incorporate the limitations of dependent claims 2 and 3. In this regard, amended independent claim 1 recites, in part and as amended:

an area update decider that decides whether a partition request requesting updating of the number and sizes of said partitioned areas satisfies said update conditions;

an area updater that updates, when said partition request satisfies said update conditions, the number and sizes of said partitioned areas in said memory area according to said partition request,

wherein procedure conditions that specify necessity of authentication in association with a timing of updating said partitioned areas, and entity conditions that specify conditions including the number of times said memory area can be partitioned, a maximum number of partitioned areas, and a maximum size per partitioned area are specified as said update conditions.

In contrast, HIROTA merely discloses that the sizes of the authentication partition 332 and non-authentication partition 331 are made variable by changing the boundary address value of the non-authentication partition 331 (HIROTA, col. 17, lines17-28).

Accordingly, with such a conventional information storage apparatus, only the size of the authentication partition 332 and non-authentication partition 331 is changed. Therefore, HIROTA fails to disclose changing the number of partitioned areas, and, consequently, according to HIROTA, it is not possible to add or remove an area having a new security level. Thus, even when the mode of use of the information storage apparatus as disclosed by HIROTA differs from one user to another, each user can only acquire an information storage apparatus having only predetermined partitioned areas (see page 2, line 23 to page 3, line 17 of the present application as filed for a further description of such a problem).

Furthermore, paragraphs [0022] and [0023] of HIROTA, which the Examiner relies on as the grounds for rejecting the feature of cancelled dependent claim 3 of the present application, merely disclose separately managing an authentication area and a non-authentication area in terms of the area size and relationships between the logical addresses and physical addresses by operating an authentication area conversion table and non-authentication area conversion table independently of one another. In other words, HIROTA fails to disclose specifying, as the update conditions, procedure conditions that specify the necessity of authentication in association with the timing to update the partitioned areas and entity conditions that specify conditions including the number of times a memory area can be partitioned, a maximum number of partitioned areas, and the maximum size per partitioned area.

Accordingly, for at least the reasons set forth above, Applicants submit that HIROTA and DOUGLAS, whether considered alone or together in any proper

combination thereof, fail to disclose or render obvious the information storage apparatus as recited by independent claim 1.

With respect to the Examiner's rejection of dependent claims 4-7, Applicants submit that these claims are all directly or indirectly dependent from independent claim 1, which is allowable for at least the reasons discussed *supra*. Thus, these dependent claims are submitted to also be allowable for at least the reasons discussed *supra*. Furthermore, all dependent claims recite additional features which further define the present invention over the references of record.

Thus, Applicants respectfully submit that each and every pending claim of the present application (i.e., claims 1 and 4-7) meets the requirements for patentability. Accordingly, the Examiner is respectfully requested to withdraw the 35 U.S.C. § 103 rejection and to indicate the allowance of each and every pending claim in the present application.

CONCLUSION

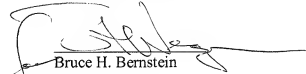
In view of the fact that none of the art of record, whether considered alone, or in any proper combination thereof, discloses or renders obvious the present invention as now defined by the pending claims, and in further view of the above amendments and remarks, reconsideration of the Examiner's action and allowance of the present application are respectfully requested and are believed to be appropriate.

Applicants note that this amendment is being made to advance prosecution of the application to allowance, and should not be considered as surrendering equivalents of the territory between the claims prior to the present amendment and the amended claims. Further, no acquiescence as to the propriety of the Examiner's rejection is made by the present amendment. All amendments to the claims which have been made in this amendment, and which have not been specifically noted to overcome a rejection based upon the prior art, should be considered to have been made for a purpose unrelated to patentability, and no estoppel should be deemed to attach thereto.

Should the Commissioner determine that an extension of time is required in order to render this response timely and/or complete, a formal request for an extension of time, under 37 C.F.R. §1.136(a), is herewith made in an amount equal to the time period required to render this response timely and/or complete. The Commissioner is authorized to charge any required extension of time fee under 37 C.F.R. §1.17 to Deposit Account No. 19-0089.

If there should be any questions concerning this application, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,
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